



Product Instruction Manual

System Monitoring Terminal AP-KS9302



Shanghai Anping Static Technology Co., Ltd.

Website : www.ap-static.com

Address : 3/F, Building 27, No.69, Guiqing Road, Shanghai, China

Tel : +86-21-64517676

Fax : +86-21-64517673

Product Description

AP-KS9302 system monitoring terminal is the monitoring display of the static electricity monitoring and elimination system produced by Anping Company (AP&T) which is used to monitor the working status of pulsed DC ionizing blowers, pulsed AC ionizing bars, and electrostatic sensors.

The system monitoring terminal (AP-KS9302), also called IMS intelligent monitor, can provide 4 ways of communication network transmission, support LAN/WAN connection, flexibly configure real-time monitoring static electricity detection and elimination equipment, and realize power supply, data interaction, real-time display, linkage, etc.

Product Features

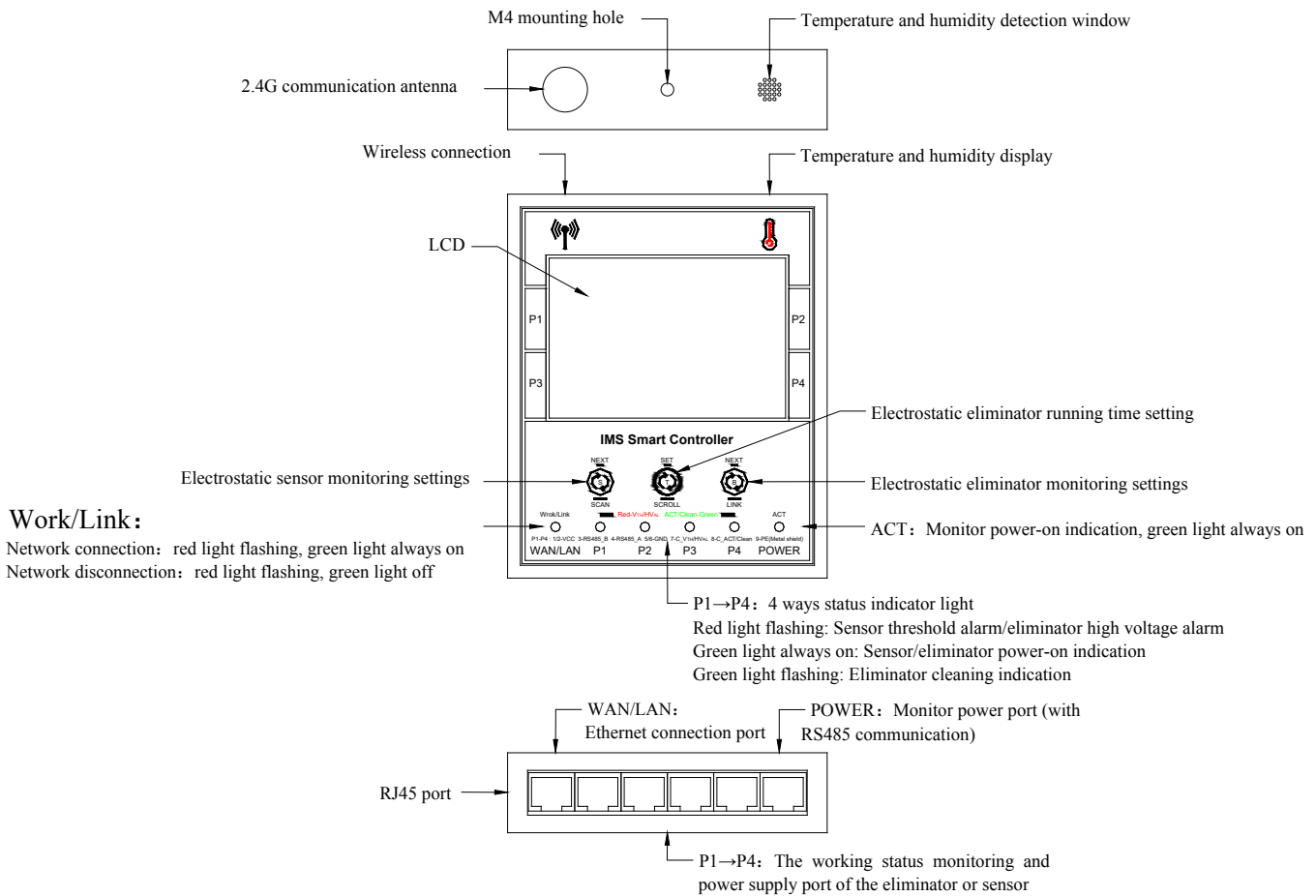
- ① Monitoring and display of the working status of electrostatic eliminators and sensors.
- ② The working status of 4 ways equipment can be monitored simultaneously.
- ③ 4 ways working status indicator lights, 1 way communication status indicator light, and 1 way power-on indicator light.
- ④ RJ45 power supply and communication port.
- ⑤ RS485 and wireless communication function.

Specifications

Specifications							
NO.	Parameter						
1	Adapter	IN:AC85-240V OUT:24V 2A					
2	Dimensions	100*120*25					
3	Indication	LED					
4	Digital display	3.5 inch COG, monochrome					
5	Working environment	Temperature: 0-50℃; Humidity: 30-70%RH					
6	Product network port	4 ways: P1-P4					
7	Network port definition	1、2	3	4	5、6、9	7	8
		White-orange/orange	White-blue	Blue	White-green/green	White-brown	brown
		VCC	RS485_B	RS485_A	GND、PE	NPN-C1	NPN-C2
8	Communication network port	WAN/LAN					
9	Power network port	POWER					
10	Net weight	400g					
11	Gross weight	500g					
Function							
NO.	Parameter						
1	Network port	POWER	Power port(with RS485 communication method)				
		P1-P4 Note 1	Eliminator or sensor				
		WAN/LAN Note 2	Ethernet connection				
2	LED	P1-P4	Red light	Eliminator	High voltage indication	Flashing	
				Sensor	Threshold indication		
			Green light	Eliminator	Power-on indication	Always on	
				Sensor	Cleaning indication		
Note							
1、P1 - P4 : Only 2 eliminators can be connected due to power limit of power supply							
2、WAN/LAN : The power supply cannot be connected to this network port, otherwise the wireless module will be damaged							

Function introduction






Function diagram



Network port cable function information

Network port cable function information		
1、2	Orange/White-orange	VCC; +24VDC
3	Blue	RS485+B
4	White-blue	RS485+A
5	Green	GND
6	White-green	GND
7	Brown	V _{TH} : Sensor threshold alarm HV _{AL} : Eliminator high voltage alarm
8	White-brown	ACT: Sensor/eliminator power-on indication Clean: Eliminator cleaning indication
9	Metal shield	PE

■ Function description table

	Antenna (2.4G)	
	Temperature and humidity sensor	
P1-P4	a	Four electrostatic sensors
	b	Two electrostatic sensors, two electrostatic eliminators
	NEXT	Short press - select product (an electrostatic sensor that must be linked)
	S	Product - Electrostatic Sensor
	SCAN	Long press - search for products
	SET	Short press - select time (10S、 20s、 30S、 60S、 90S、 120S、 360S)
	T	Time - running time of electrostatic eliminator
	SCROLL	Long press - quickly adjust the time
	NEXT	Short press - select (an electrostatic eliminator)
	B	Product - Electrostatic Eliminator
	LINK	Long press – linkage (linkage control of electrostatic sensor and electrostatic eliminator)
Red-VTH/HVAL	HVAL	Electrostatic eliminator high voltage alarm indication
	VTH	Electrostatic sensor threshold alarm indication
	Red	Red light indication
ACT/Clean-Green	Green	Green light indication
	ACT	Product online indication
	Clean	Electrostatic eliminator cleaning indication
WAN/LAN	Ethernet connection method (default LAN)	
Wrok/Link	Work	Red light flashes - standby, red light off - no power supply or module damage
	Link	Green light off - disconnected, green light always on - connected
POWER	DC - 24/2A	
ACT	Green light always on - connected to the power supply	

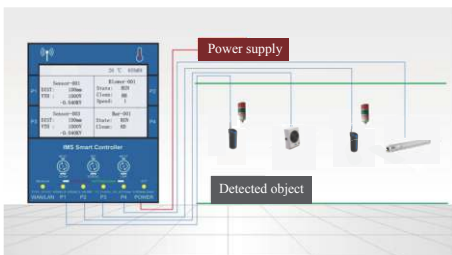
■ Function introduction

- ① The upper right corner of the IMS intelligent monitor screen displays the ambient temperature and humidity in real time.
- ② The network port POWER is the power supply port of the IMS intelligent monitor. The green light is on for normal power supply, P1-P4 are the power supply and data monitoring ports for external products, and AL1-AL4 indicate the working status of the external product, the green light is always on for normal while red light is on for abnormal.
- ③ The LINK indicator light shows the WIFI connection status of the IMS intelligent monitor. The red light keeps flashing when the module is working normally, and the green light is on when the connection is successful while the green light is off when the connection is disconnected.
- ④ SCAN Long press to search the device and short press to light up the screen.
- ⑤ LINK Long press to jump to the setting interface.
- ⑥ Short press SCAN - NEXT to link the electrostatic elimination equipment and sensor.
- ⑦ Short press SCROLL – SET to set the elimination time.
- ⑧ Short press LINK – NEXT to switch to the next setting.

Installation Guide

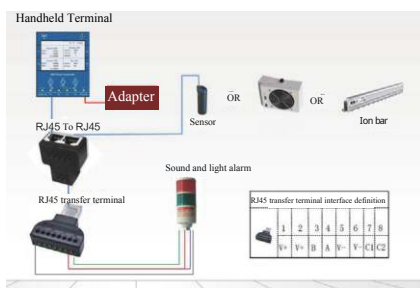
■ Search equipment

Long press the SCAN button to search for equipments after turning on the power, and the online connected equipments will be displayed after 10S. Connect two electrostatic sensors and two power elimination equipments as shown in the figure below and press to display (Sensor-001/Sensor-003/Bar-001/Blower-001).



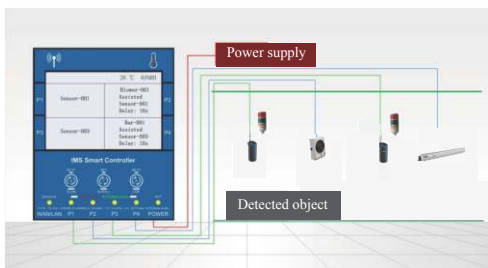
■ Linkage equipment

Long press LINK to jump to the setting interface, short press SCAN – NEXT to link electrostatic equipment and sensor, short press SCROLL – SET to set the elimination time (delay time 10S-360S), short press LINK - NEXT to jump to the next setting page. Set up the linkage equipment between the electrostatic sensor and the elimination equipment as shown in the figure below.



■ Abnormal alarm

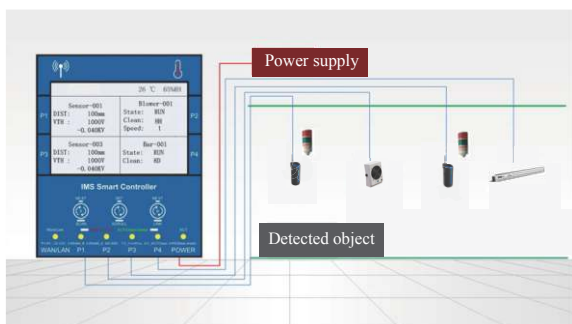
The IMS intelligent monitor is connected through RJ45 to RJ45, one end is connected to detection equipment and elimination equipment, and one end is inserted into the RJ45 adapter terminal to connect to the sound and light alarm. The sound and light alarm is in red light and accompanied by the buzzing sound when the sensor or elimination equipment is abnormal.



■ Host-slave mode

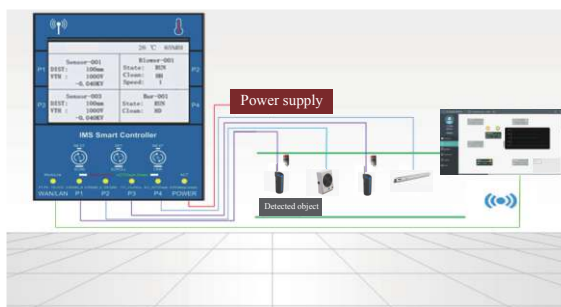
① Host mode

The IMS intelligent monitor supports reading the work information of external static electricity detection equipment and static electricity elimination equipment, and can link and set related operations of static electricity elimination products in the host mode.

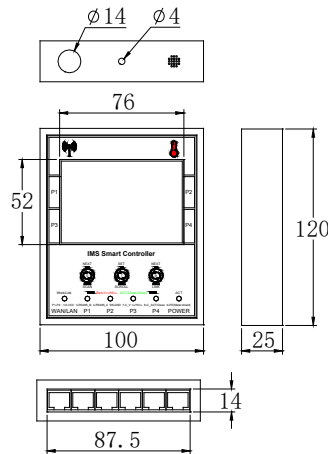


② Slave mode

The IMS intelligent monitor is connected to the computer via WIFI/ RJ45 in the IMS software in which the static electricity detection and elimination of the IMS intelligent monitor can be conducted when the IMS intelligent monitor is in PC slave mode.



Dimensions



Maintenance

It should be stopped and repaired by professional maintenance personnel if the display or working status indicator on the panel is off when the system monitoring terminal is confirmed to be connected to the equipment correctly and the power supply is normal. It can be used only after the electrical performance indicators are normal.

Safety warning



Warning

- Please read the instruction manual carefully before installing and using this equipment.
- The working input power must be reliably connected to the grounding wire of the electrical power supply cable and the grounding resistance should be less than 4 ohm; Otherwise, it is easy to cause abnormal or even damage of the equipment.
- Do not use this equipment in environment where humidity is $> 70\%$.
- It is strictly forbidden to use this equipment in flammable and explosive environments.
- Unauthorized disassembly of the product is strictly prohibited, internal maintenance and repair must be performed by professionals.
- It is strictly forbidden to touch liquid during use, otherwise an abnormality may occur and cause electric shock or fire.
- Power must be turned off during inspecting or replacing the product, otherwise it may cause electric shock or fire.
- The product is specially designed for monitoring and eliminating static electricity. It is strictly forbidden to use it for other purposes. Any abnormal use may cause machine failure, electric shock, fire and other accidents.
- Please check the input voltage before powering on the product. Any power supply that does not meet the specifications will cause damage to the product.
- Please check the product power cord regularly and replace it immediately if it is damaged. Otherwise it is easy to cause problems such as electric leakage and abnormal operation.

After-sales service

1. System monitoring terminal has undergone rigorous testing and aging treatment before ex-work. Its performance has completely reached the relevant indicators marked in the usage instruction.
2. AP&T makes a commitment to the customer that any defective parts inspected by AP&T will be repaired or replaced free of charge within one year from the date of purchase. However, this commitment does not apply to:
 - (1) The device is incorrectly used or installed.
 - (2) Damage caused by negligence or accident during use.
 - (3) Modified, disassembled or repaired by other service departments not authorized by Anping Company.
3. AP&T shall not be liable for any incorrect use of the products except for repair or replacement of parts as specified above.

Packing accessories

- ① Manual $\times 1$ ② Certificate of conformity $\times 1$ ③ Power Adapter $\times 1$ ④ National standard power cord $\times 1$ ⑤ Power network cable $\times 2$